

Appl. No. 09/806,457

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An apparatus for detecting a property of ~~an object~~ marked objects contained in a specimen, the apparatus comprising

a frame,

a member positioned on the frame and having a surface that is adapted to receive and hold the specimen,

~~at least a first light source for emission of at least a first light beam towards the specimen held by the member,~~

~~at least one a detector for detection of light emitted from the object upon interaction with the at least first light beam~~ detecting the property of marked objects, and

scanning means for scanning the specimen ~~at least first light beam~~ in relation to the ~~at least one detector across the specimen~~ along a non-linear curve, wherein the scanning means comprises means for rotating the member and means for displacing the member along a radius of the circular movement of the member, so as to detect the property of the marked objects in the entire specimen,

~~wherein the objects of the specimen are stained with two or more fluorescent markers.~~

2-6. (Cancelled)

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7. (Currently Amended) An apparatus according to claim 1, wherein the member is positioned for rotation about an axis on the frame and wherein the scanning means comprise means for rotating the member rotates the member about the axis.

8. (Previously Presented) An apparatus according to claim 1, further comprising scanning control means for controlling the scanning means for scanning the specimen along a predetermined curve.

9. (Previously Presented) An apparatus according to claim 8, wherein the scanning control means are adapted to control the scanning means in such a way that the predetermined curve is a substantially circular curve.

10. (Currently Amended) An apparatus according to claim 8, further comprising storage means for storage of detector signals provided by the detector and corresponding position signals provided by the scanning control means.

11. (Previously Presented) An apparatus according to claim 10, further comprising means for sampling and digitising the detector signals and the position signals.

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12. (Previously Presented) An apparatus according to claim 1, further comprising signal processing means operatively connected to the detector to detect a presence of an object based on the detector signals.

13. (Previously Presented) An apparatus according to claim 12, wherein position signals relating to detected objects are stored in the storage means.

14. (Previously Presented) An apparatus according to claim 13, wherein the stored positions of the detected objects are retrieved, and used by said scanning means to position a means for optical inspection of detected objects.

15. (Previously Presented) An apparatus according to claim 1, wherein the specimen has an area larger than 500 mm².

16. (Previously Presented) An apparatus according to claim 1, wherein the specimen has an area larger than 8000 mm².

17-22. (Cancelled)

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23. (Previously Presented) An apparatus according to claim 1, wherein a mask is inserted in the optical path between the specimen and the detector, and

the mask comprises at least one transparent aperture.

24. (Previously Presented) An apparatus according to claim 23, wherein the aperture shape is a substantially rectangular shape.

25. (Previously Presented) An apparatus according to claim 23, wherein at least one dimension of the aperture, as projected on the specimen, is between 0.75 and 2 times the dimensions of objects to be detected.

26. (Cancelled)

27. (Previously Presented) An apparatus according to claim 1, wherein the light source is a coherent light source.

28. (Currently Amended) An apparatus according to claim 1, wherein the first light beam is adapted to provide a light spot having a diameter between 20-150 μ m on the specimen.

29. (Currently Amended) A method of detecting a property of an object contained in a specimen and comprising the steps of:

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positioning the specimen on a member having a surface that is adapted to receive and hold the specimen,

~~staining the objects with two or more fluorescent markers,~~
~~emitting at least a first light beam towards the specimen held~~
~~by the member~~

~~scanning the at least first light beam specimen in relation to~~
~~a detector across the specimen along a non-linear curve by rotating~~
~~the member holding the specimen and displacing the member along a~~
~~radius of the circular movement of the member, and~~

~~detecting the property of the marked objects during scanning~~
~~of the specimen~~

~~detecting light emitted from the object stained with two or~~
~~more markers upon interaction with the at least first light beam~~
~~during scanning of the specimen.~~

30-35. (Cancelled)

36. (Currently Amended) A method according to claim 29, further comprising the step of storing signals relating to the detected property and corresponding data relating to the current position of the member.

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37. (Previously Presented) A method according to claim 36, further comprising the step of sampling and digitising the signals and the data.

38. (New) An apparatus according to claim 14, wherein the means for optical inspection is a microscope.

39. (New) An apparatus according to claim 38, wherein the scanning control means are adapted to place an automated microscope at the position of any desired target object.

40. (New) An apparatus according to claim 1, wherein the marked objects are marked with a fluorescent stain.

41. (New) An apparatus according to claim 1, wherein the detector comprises magnetic detection means.

42. (New) An apparatus according to claim 41, wherein the detector comprises a magnetic reading head.

43. (New) An apparatus according to claim 1, further comprising

a light source for emission of a light beam towards the specimen held by the member, and wherein

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the detector comprises an optical detector for detection of light emitted from the object upon interaction with the light beam during scanning of the specimen.

44. (New) An apparatus according to claim 43, wherein the detector comprises a CCD device.

45. (New) An apparatus according to claim 40, wherein the fluorescent marker is Fluorescein.